



September 24, 2021

Subject: Advanced Clean Fleets Regulation Informal Workshop

Dear Tony Brazil,

On behalf of the Resource Recovery Coalition of California (Resource Coalition), we appreciate the opportunity to comment on the proposed Advanced Clean Fleet (ACF) regulations during the informal rulemaking period. Our members provide critical waste and recycling services throughout California and have led the state in recycling and organic material management innovation.

These informal comments will address the draft cost discussion document and the high priority fleet requirements as currently proposed.

Draft Cost Discussion Document

As we work toward meeting the requirements of the ACF regulation, it is imperative that cities, counties, and industry partners understand the financial implications of this enormous transition. For those that operate in the waste and recycling industry, we provide essential public health and safety services directly to jurisdictions. These essential services are funded through local customer rates and, in many cases, are executed through local franchise agreements. Identifying the actual costs of meeting the ACF obligations will be critical to the planning and building out of zero emission infrastructure and the fleets that utilize it.

As currently drafted, the draft cost discussion document is not representative of the actual cost to transition to heavy-duty zero emission vehicles (ZEVs), especially for those operating “refuse packers” as identified in the analysis. First, the document assumes a one-to-one replacement of waste collection vehicles, when we know that the range of current ZEV waste vehicles is limited (most at 100 miles or less) and the payload loss of these vehicles is approximately 6000 - 7000 pounds. More relevant than range is the duty cycle of the available ZEVs, as collection requires considerable lifting of containers, often through hydraulic systems. As waste material is collected, the weight of the truck also increases. With duty-cycle and payload losses, our members estimate that a ZEV refuse packer replacement is easily 2:1, thereby doubling costs of both the vehicle and the infrastructure necessary to charge that vehicle. As it pertains to operations, this would also require additional labor to drive and operate the vehicle.

Furthermore, while there are estimated charger and infrastructure upgrade costs assumed in the document, there is no inclusion of the backup power necessary in the case of a power shortage. In our direct conversations with both PG&E and SMUD, the utilities indicated that this cost and infrastructure would be borne by the fleet operators. Additionally, there is no estimate of the additional charging infrastructure necessary for a mid-day charging “top-off” that many manufacturers say will be required for trucks to complete a full route. When we asked the manufacturers what the typical cost is for a 50kW charger, they estimated \$40,000 - \$50,000, which



handles only one truck. While a 200kW charger, that services 3-5 trucks, was estimated at \$80,000 - \$90,000. It was also discussed that conduits and utility infrastructure should be built to address estimated future needs, which reduces costs overall, but creates substantial upfront costs to the fleet operator that will need to be recouped.

Finally, there are significant cost recovery estimates for the total cost of ownership of both battery electric vehicle (BEV) and fuel cell electric vehicles through the state's Low Carbon Fuel Standard program. While LCFS credits are available today, what certainty exists that these credits will continue in the future and will provide these anticipated financial offsets?

High Priority Fleet Requirements

We remain concerned that there is no simple pathway for fleet operators when there is no one-to-one replacement for their vehicle needs. The daily mileage exemption, as currently proposed, requires a lengthy bid process and puts focus on near zero emission vehicle (NZEV) acquisition when no certified NZEVs are even currently certified by CARB. It also necessitates each fleet to submit extensive documentation directly to CARB staff, requiring the Executive Officer to grant exemptions on a case-by-case basis. This is an inefficient process that will require unnecessary effort by both the fleet operator and the agency. A streamlined approach whereby the vehicle can be demonstrated to be a one-to-one replacement for a standard internal combustion engine (ICE) vehicle would be the simplest way to address this issue, with a list of vehicles that meet this condition that is updated regularly by CARB.

There is also no exemption provision or extension for infrastructure that will serve ZEVs. We know from our conversations with utility providers and manufacturers that building the necessary charging infrastructure can easily take 18 months or longer, with many aspects entirely out of the control of fleet operators. This should not throw a fleet out of compliance, nor does it make sense for this fleet to then be forced to purchase further ZEVs when these vehicles cannot be operated. Furthermore, when we met directly with vehicle manufacturers in June of this year, we learned that a class 8 BEV with a 396kWh battery will require 30 times the energy of daily average home use when charging 8 hours or faster. What certainty exists that the power will be available for these operators, especially when we are and continue to be faced with brownouts and blackouts across the state? As essential service providers, it is critical that waste operators be able to collect material that can pose serious health and safety risks to our communities if left unmanaged.

Additionally, there is considerable confusion around how the ZEV target calculation is determined when using compliant vehicles. If a vehicle is considered compliant, it should count as an equivalent ZEV and therefore count toward the ZEV target number. Alternatively, it should be excluded from the ZEV target calculation, as would other ZEVs in the fleet, when determining the total ZEV target. As currently drafted, the calculation method is confusing and does not make clear that compliant vehicles count toward the ZEV target number. Frustratingly, for those who may be forced to purchase two ZEV vehicles to replace one ICE, this will increase the ZEV target requirement as vehicles are added to the fleet. We do appreciate the flexibility, however, in meeting the ZEV target



calculation within the various Groups as defined and acknowledge this will help fleets that may not be able to purchase vehicles in a certain Group category.

Unfortunately, there also remains confusion about how SB 1's useful life provision is applied to those vehicles purchased after January 1, 2024. Will these vehicles be able to serve their useful life under the proposed regulations?

One issue that greatly concerns our membership is the ZEV fleet recognition approach. First, we are unclear if a jurisdiction is obligated by CARB to contract with a ZEV fleet in the waste sector and second, we do not see how effective this approach is if a fleet can meet this obligation and not deploy a single ZEV in the community they are serving. There is little sense in creating two lists - a compliant fleet list and a ZEV fleet recognition list – if the fleet is not locally deploying a ZEV and is simply meeting this expectation because they are large enough to fall under the established criteria. This does not support local emission reductions and is essentially meaningless if there are no local deployment criteria.

Finally, there is no cohesion with SB 1383 obligations and jurisdiction procurement expectations. In-state renewable natural gas (RNG) derived from organic material should absolutely have a home in these fleet obligations and should be supported by CARB as a means of meeting our short-lived climate pollutant (SLCP) strategy and regulatory obligations. Fleets that utilize in-state RNG procured from organic waste, dairy waste, and wastewater treatment plants, when coupled with the lowest NOx engine available, should have a pathway for compliance within the ACF regulatory approach. If included, this will serve not only to support the necessary development outlined in the SLCP strategy, but will provide immediate emissions reductions. As currently proposed there is absolutely no regulatory incentive to choose these cleaner vehicles and fuel over a standard diesel vehicle, which will only serve to prolong the use of diesel vehicles on California's roads. At a minimum, there needs to be a transition strategy for in-state RNG utilization.

Given the complexity of these regulations and the uncertainty that remains, we respectfully request at least one more informal workshop prior to the release of regulations for formal rulemaking. This should be a recorded event and Q&A should be made available to all. We thank you for your consideration of these comments as you develop the ACF regulations.

Sincerely,

A handwritten signature in black ink that reads "Veronica Pardo".

Veronica Pardo
Regulatory Affairs Director
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